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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,653	11/18/2003	Mack J. Schermer	111453.122 US2	5352

23483 7590 10/05/2005

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EXAMINER

HANDY, DWAYNE K

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/715,653

Applicant(s)

SCHERMER ET AL.

Examiner

Dwayne K. Handy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 1-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2/26&4/26/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-13, drawn to a method of producing a microarray, classified in class 436, subclass 180.
 - II. Claims 14-21, drawn to an apparatus for producing a microarray, classified in class 422, subclass 100.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used to transfer liquids to and from multiwell plates or containers.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

3. During a telephone conversation with Raj Vallabh on 9/16/2005 a provisional election was made with traverse to prosecute the invention of Group II, claims 14-21. Affirmation of this election must be made by applicant in replying to this Office action.

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Claims 1-13 are withdrawn from further consideration by the examiner, 37

CFR 1.142(b), as being drawn to a non-elected invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 14-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Feygin (5,957,167 – “Feygin”). Feygin teaches an article for dispensing small volumes of liquid. The article is best shown in Figures 5, 6 and 8. The device is comprised of an array of fluid dispensing members (200, 300) having two opposed surfaces separated by a gap for holding the liquid. The flat opposed surfaces may be obtained by forming a slit in a

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solid rod (column 3, lines 19-27). The Examiner considers a fluid dispensing member comprised of a solid rod having a slit as meeting the limitation of a "pin". Figures 6 and 8 show embodiments of the device of particular interest to the instant claims. Figure 6 shows an array of dispensing members (300a-300c) attached to a rigid base (618), a support (movable stop member #624), and an actuator (614a-614c) comprised of a helical spring. The Examiner considers the fixed stop members (624) as comprising a plurality of holes with each having a pin slidably mounted therein. Figure 8 shows an embodiment where the actuator for each fluid dispensing member is comprised of a solenoid (column 5, lines 14-53). Feygin discloses pneumatic, hydraulic or other electrodynamic means for actuators in column 5, lines 5-13.

7. Claims 14-16, 20 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Overbeck et al. (6,269,846 - "Overbeck"). Overbeck teaches a fluid deposit assembly. The assembly is best shown in Figures 2, 4, 13A, and 14. The device includes a carrier (17) comprised of two vertically spaced plates (9 and 11) for holding deposit pins (12). Overbeck teaches individual pin control in column 9, lines 30-43 and column 10, lines 33-63. The cited passage from column 9 includes a teaching of the use of magnetic attraction to control the pins. Arrays of pins are disclosed in columns 11 and 12.

8. Claims 14-16, 18, 20 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Rose et al. (6,551,557 - "Rose"). Rose teaches a random access print

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head. The device is best shown in Figure 3 and described in columns 6 and 9. The device includes a print head (230) having a rectangular array of transfer tips (200) mounted on a tip holder (236) with a plurality of holes and a plurality of solenoids (238). When a solenoid is energized, the tip base (234) is attracted to the solenoid (238) resulting in the tip moving as shown in Figure 3. The Examiner considers the tip base to meet the broad limitation of a "support" as claimed in claim 18. Rose teaches individual control of the pins in column 9, line 60 through column 10, line 14.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shalon et al. (6,309,891) teaches a capillary printing system. Schermer et al. (6,447,723) teaches a microarray spotting instrument. Kondur, Jr. (4,004,671) teaches a dot matrix print head. Baier (5,882,930), Kowallis et al. (6,228,659), Bienert et al. (6,506,611), Feygin (6,116,297) and Kietzmann et al. (6,599,479) teach dispensing devices.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwayne K. Handy whose telephone number is (571)-272-1259. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571)-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DKH
September 26, 2005


Jill Warden
Supervisory Patent Examiner
Technology Center 1700